

**From:** Stephen Owens <sowens@gilesengr.com>  
**Sent:** Monday, March 08, 2021 4:53 PM  
**To:** Grittner, Paul V - DNR  
**Subject:** Pershing Plaza - Soil Table and GW Flow Map  
**Attachments:** Table 1 Soil.pdf; 1E-1902007 (Figure 5 - GW Flow Direction - 1-11-2021).pdf

Hi Paul,

As we discussed, attached is the Soil Analytical Results table and the most recent Groundwater Flow Direction map for the Pershing Plaza site. Please let me know if you have any questions.

Thanks,  
Steve Owens

Stephen M. Owens, P.G., P.H.  
Project Manager



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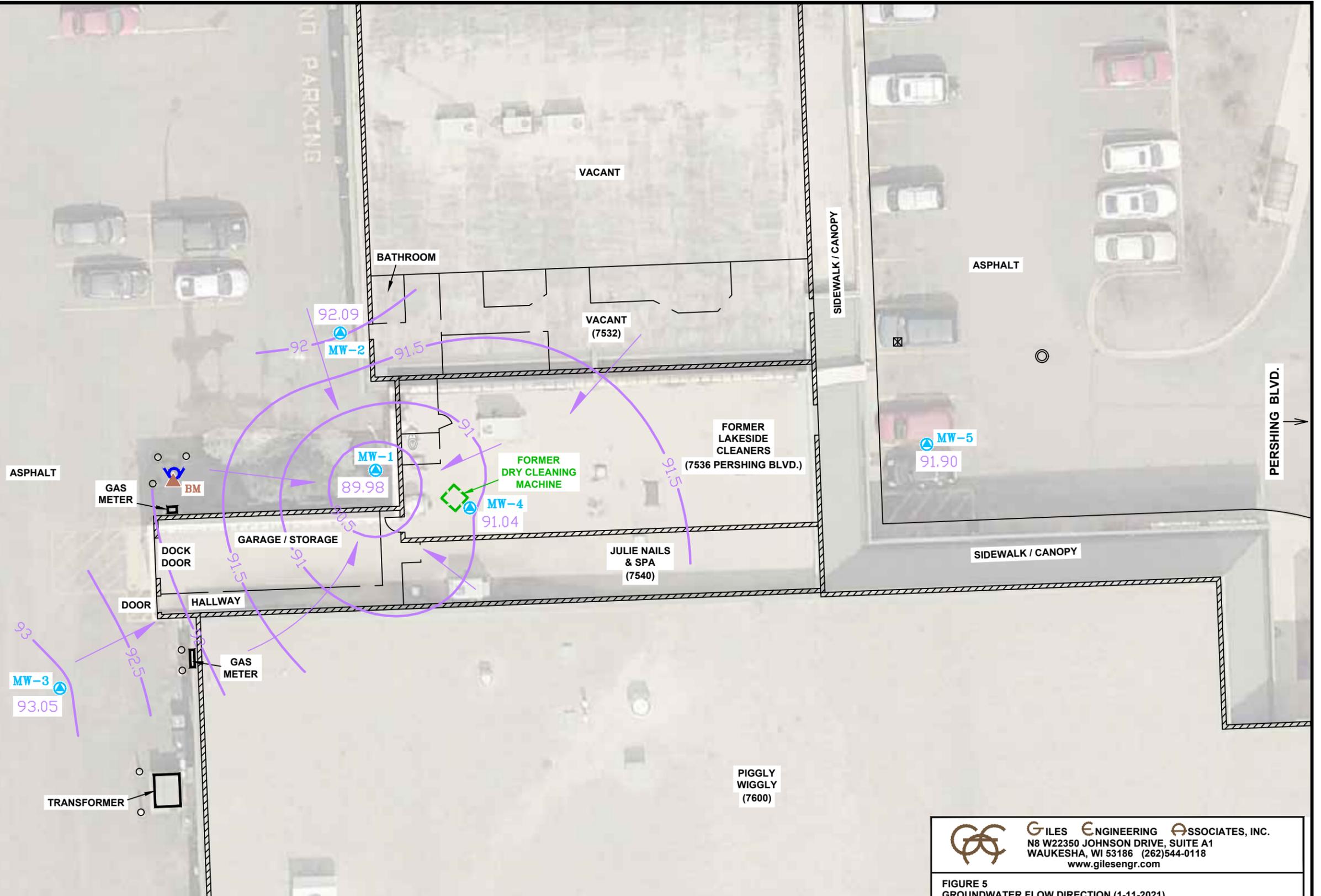
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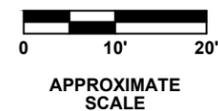
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**LEGEND:**

-  GROUNDWATER CONTOUR  
INTERVAL = 0.5'
-  GROUNDWATER FLOW DIRECTION
-  GROUNDWATER ELEVATION  
(IN FEET REFERENCED TO  
ARBITRARY BENCHMARK)
-  GROUNDWATER  
MONITORING WELL
-  FIRE HYDRANT
-  CATCH BASIN
-  MANHOLE
-  BENCHMARK: TOP OF FIRE HYDRANT.  
ASSUMED ELEVATION = 100.0'



**NOTES:**  
1.) EXISTING FEATURES ARE APPROXIMATE BASED ON AERIAL PHOTOGRAPHY AND FIELD OBSERVATIONS.



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FIGURE 5  
GROUNDWATER FLOW DIRECTION (1-11-2021)  
PERSHING PLAZA SHOPPING CENTER  
(FORMER LAKESIDE CLEANERS)  
7536 PERSHING BOULEVARD  
KENOSHA, WISCONSIN

DESIGNED	DRAWN	SCALE	DATE	REVISED
SMO/KMH	<i>Jed</i>	approx. 1"=20'	01-25-21	--
PROJECT NO.: 1E-1902007			CAD No. 1E1902007E	

**TABLE 1  
SOIL ANALYTICAL RESULTS**

Pershing Plaza Shopping Center  
(Former Lakeside Cleaners Lease Space)  
7536 Pershing Plaza Boulevard  
Kenosha, Wisconsin  
BRRTS # 02-30-582211  
Project Number 1E-1902007

Sample Location	B-1*	B-2*	B-3*	GP-1*		GP-2*		GP-3*		GP-4*		NR 720 RCLs <sup>1</sup> (mg/kg)		
				2-4	8-10	0-2	10-12	2-4	10-12	2-4	10-12	Soil to Groundwater Pathway	Direct Contact <sup>2</sup>	
Sample Depth (feet)	3-4	3-4	3-4	2-4	8-10	0-2	10-12	2-4	10-12	2-4	10-12		Soil to Groundwater Pathway	Non-Industrial Land Use
Sample Date	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18	3/14/18			
Saturated/Unsaturated	--	--	--	--	--	--	--	--	--	--	--			
PID (instrument units)	--	--	--	--	--	--	--	--	--	--	--			
Detected VOCs (mg/kg)														
Tetrachloroethene	<u>15.9</u>	<u>2.63</u>	<u>1.01</u>	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<b>0.0045</b>	<b>33</b>	<b>145</b>
Trichloroethene	<u>0.127 J</u>	<u>0.43</u>	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<b>0.0036</b>	<b>1.3</b>	<b>8.41</b>
Vinyl chloride	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<u>0.0228 J</u>	<0.019	<0.019	<0.019	<0.019	<b>0.0001</b>	<b>0.067</b>	<b>2.08</b>

**Notes:**

<sup>1</sup>Wisconsin Administrative Code Natural Resources Chapter (NR) 720 Residual Contaminant Levels were obtained from the Wisconsin Department of Natural Resources (WDNR) spreadsheet, last updated December 2018

<sup>2</sup>Direct Contact RCLs only apply to soil samples collected within four feet of the ground surface

\*Samples were collected by The Sigma Group

RCL: Residual Contaminant Level

PID: Photoionization Detector

VOCs: Volatile Organic Compounds

mg/kg: Milligrams per kilogram; equivalent to parts per million (ppm)

-- : Not Analyzed

J: Result is less than the reporting limit but greater than or equal to the method detection limit, therefore the concentration is an approximate value

B: Compound detected in the sample and the laboratory method blank

NS: No Standard Established

<xx.x: Result detected below the method detection limit of x

xx.x: Underlined results exceed the NR 720 RCL for the Soil to Groundwater Pathway

(xx.x): Parenthesized results exceed the NR 720 RCL for Non-Industrial Direct Contact

[xx.x]: Bracketed results exceed the NR 720 RCL for Industrial and Non-Industrial Direct Contact

**TABLE 1**  
**SOIL ANALYTICAL RESULTS**  
Pershing Plaza Shopping Center  
(Former Lakeside Cleaners Lease Space)  
7536 Pershing Plaza Boulevard  
Kenosha, Wisconsin  
BRRTS # 02-30-582211  
Project Number 1E-1902007

Sample Location	B-4		B-5		B-6		MW-1		MW-2		MW-3		NR 720 RCLs <sup>1</sup> (mg/kg)		
	Sample Depth (feet)	0-2	8-10	3-4	8-10	3-4	8-10	0-2	6-8	0-2	6-8	2-4	6-8	Soil to Groundwater Pathway	Direct Contact <sup>2</sup>
Sample Date	7/25/19	7/25/19	4/16/20	4/16/20	4/16/20	4/16/20	7/25/19	7/25/19	7/25/19	7/25/19	7/25/19	7/25/19	7/25/19		Non-Industrial Land Use
Saturated/Unsaturated	U	U	U	S	U	S	U	S	U	S	U	U			
PID (instrument units)	244	7.3	0.4	0.4	0.3	0.2	3.3	2.8	1.7	2.0	1.9	3.5			
<b>Detected VOCs (mg/kg)</b>															
Tetrachloroethene	<u>6.0</u>	<0.032	<0.032	<0.032	<u>0.64</u>	<0.032	<u>0.189</u>	<0.032	<0.032	<0.032	<0.032	<0.032	<u>0.0045</u>	<u>33</u>	<u>145</u>
Trichloroethene	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<0.041	<u>0.0036</u>	<u>1.3</u>	<u>8.41</u>
Vinyl chloride	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<u>0.0001</u>	<u>0.067</u>	<u>2.08</u>

**Notes:**

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